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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,164	06/02/2000	Richard Foltak	2705-96	7344
20575	7590	01/16/2004		
MARGER JOHNSON & MCCOLLOM PC 1030 SW MORRISON STREET PORTLAND, OR 97205				
EXAMINER AGDEPPA, HECTOR A				
ART UNIT		PAPER NUMBER		
2642				

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,164

Applicant(s)

FOLTAK ET AL.

Examiner

Hector A. Agdeppa

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because certain elements are not labeled such as those elements in the PSTN cloud 18 of Fig. 1. It is also suggested that where certain elements are labeled only by a number, they also be labeled with an actual element name to maintain consistent labeling and to effect more clarity in the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Line 11 on p. 5 of the specification states "... programming the DRSSM..." It is believed that applicant intended the acronym to be DCSSM instead.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,239,542 (Breidenstein et al.) and US 6,327,508 (Mergard).

As to claim 1, Breidenstein et al. teach a TDM switching system having a memory for storing various state and protocol-specific tables/matrices read as the claimed memory. (Abstract, Col. 4, lines 34 – 53) Breidenstein et al. also teach a time slot interchange (TSI) 10 which separately or in conjunction with processor and memory 16 receive and transmit line signaling, read as the claimed trunk controller. (Figs. 1 and 4, Col. 2, line 65 – Col. 63) Breidenstein et al. also teach that processor (and memory) 16 constitute a state machine which by accessing/executing the above-mentioned tables conducts line signaling in the TDM system read as the claimed device processor, once a specific signaling type is determined to be used over a certain trunk/circuit. (Col. 3, line 6 – Col. 5, line 35)

What Breidenstein et al. do not teach is the use of dynamically configurable signaling templates. Breidenstein et al. instead teach a system employing various set templates or tables according to the various protocols conversion may be needed for.

However, Mergard teaches a general purpose dynamically programmable state machine which allows for dynamically changing state machine functions through the use of masking and comparator functions. (Abstract, Figs. 3 and 4, Col. 2, lines 29 – 50 of Mergard) This masking and comparator functions, specifically operate as the claimed dynamically configurable set of signaling templates since they define the different values which make up a template or table. (Col. 4, line 46 – Col. 6, line 23 of Mergard)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented a dynamically configurable state machine/set of templates in the invention of Breidenstein et al. inasmuch such a feature is now old and well known in the art and it is the obvious extension to static state machines/templates. The motivation for this is simply that less protocol/signaling prediction is needed when dynamic configuration is available. The technology taught by Breidenstein et al. is merely older and it would again be obvious to update it with the more flexible dynamically programmable aspect taught by Mergard. The end result functionality of the state machine taught by Mergard is identical to the one taught by Breidenstein et al. and so could obviously and easily be implemented in the system of Breidenstein et al.

As to claims 2 – 5, it would be inherent or at the very least obvious for one of ordinary skill in the art to be able to delete or insert needed templates in the system of Breidenstein et al. inasmuch as Breidenstein et al. contemplates providing conversion for many protocols depending on system type, country of use, etc. (Col. 1, lines 15 – 50 of Breidenstein et al.). Therefore, any system utilizing templates according to these

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various protocols would first have to be uploaded/inserted. And if a protocol becomes defunct or is no longer used, there would be ample motivation in terms of resource/memory efficiency to allow for deletion of its associated template.

As to claim 6, Breidenstein et al. teach detecting and re-generating tones and line signaling and therefore it is inherent that a DSP would be needed for this purpose. (Fig. 5A, Col. 1, lines 8 – 15)

As to claims 7, 10, and 11, Breidenstein et al. has been discussed above and further teach that the templates/protocols are identified by a numbering plan and/or circuit type as well as by screen class. Any of these identifications read on the claimed template "name." Moreover, there must be some way to identify and differentiate between the various protocols contemplated in Breidenstein et al. so that the appropriate signaling protocol may be used according to what is desired and what type of signaling is received.

Also, Breidenstein et al. teach the above in relation to incoming and outgoing calls. (Abstract) inasmuch as it handles both incoming and outgoing trunks.

As to claims 8 and 9, see Fig. 5A and Col. 4, line 34 – Col. 7, line 14 wherein characters represent the various states and subroutines available and represent the various instructions (directives) which are used to reference the specific protocol and effect the appropriate action.

As to claims 12 – 14, 16, 18, 20, and 21, see the above rejection of claims 1 and 7.

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As to claims 15 and 17, Breidenstein et al. teach both a first and second controlling means wherein the first receives signaling according to a first protocol, and the second translates/outputs the signaling into a common or other protocol for signaling transmission. See also the rejection of claim 7.

As to claim 19, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have included such a reporting/notification feature in the system of Breidenstein et al. Reporting and notification of errors is extremely old and well known in the art and is merely a user-friendly option that a system designer could choose to add to a system.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5,778,059 (Loghmani et al.) teach a distributed and event-driven processing environment wherein dynamic state machines are employed. US 6,212,625 (Russell) teaches a general purpose dynamically programmable state engine for executing finite state machines. US 6,272,217 (Cortes et al.) teach routing call processing communications wherein protocol conversion is done to effect communications between various types of lines and communication types.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

H.A.A.
January 7, 2004


AHMAD MATAR
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